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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/785,044	02/14/2001	Edwin C. Iliff	HEWAYS.015A6	4724
20995 7590 12/07/2010 KNOBBE MARTENS OLSON & BEAR LLP 2040 MAIN STREET FOURTEENTH FLOOR IRVINE, CA 92614				
EXAMINER				
CHANNAVAJJALA, SRIRAMA T				
ART UNIT		PAPER NUMBER		
2157				
NOTIFICATION DATE		DELIVERY MODE		
12/07/2010		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

09/785,044

**Applicant(s)**

ILIFF, EDWIN C.

**Examiner**

SRIRAMA CHANNAVAJJALA

**Art Unit**

2157

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 September 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-56 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-56 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/02)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date See Continuation Sheet

Continuation of Attachment(s) 3. Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :11/2/2010,6/21/2010;3/12/2010;11/19/2009;6/25/2009;6/15/2009;1/16/2009 .

**DETAILED ACTION**

**Response to RCE**

1. **"Decision on Appeal" mailed on 3/23/2010.**
2. **Decision on request for rehearing mailed on 8/11/2010**
3. Claims 1-56 are pending in this application.
4. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114 filed on 3/23/2009. Applicant's submission filed on 9/29/2010 has been entered
5. Examiner acknowledges applicant **amended claims 1,6,9,11 and added new claims 53-56** filed on 9/29/2010.

**Drawings**

6. The Drawings filed on 2/14/2001 are acceptable for examination purpose

**Priority**

7. Acknowledgment is made of applicant's claim for domestic priority application # **60182176**, **filed 02/14/2000** under 35 U.S.C. 119(e).

***Information Disclosure Statement***

8. The information disclosure statement filed on 11/2/2010,6/21/2010;3/12/2010;11/19/2009;6/25/2009;6/15/2009;1/16/2009 is in compliance with the provisions of 37 CFR 1.97, and has been considered and a copy was enclosed with previous Office Action
9. The information disclosure statement filed on 5/9/2008 is in compliance with the provisions of 37 CFR 1.97, and has been considered and a copy is enclosed with this Office Action.
10. Applicant is reminded that an applicant's duty of disclosure of material and information is not satisfied by presenting a patent examiner with 'a mountain of large information disclosure (material) from which he is presumed to have been able, with his expertise. Applicant is reminded that an applicant's duty of disclosure of material and and with adequate time, to have found the critical (material). It ignores the real world conditions under which examiners work. *Rohm & Haas Co. v. Crystal Chemical Co.*, 722 F.2d 1556 (220 USPQ 289) (Fed. Cir. 1983), cert deniedb 469 U.S. 851 (1984). (Emphasis in original). ***Patent applicant has a duty not just to disclose pertinent prior art references but to make a disclosure in such way as not to "bury" it within other disclosures of less relevant prior art***; See *Golden Valley Microwave Foods Inc. V Weaver Popcorn Co. Inc.*, 24 USPQZd 1801 (N.D. Ind. 1992)., *Molins PLC v. Textron Inc.*, 26 USPQZd 1889, at 1889 (D.Del. 1992)\*, *Penn Yan Boats, Inc. F. Sea Lark 8oals, Inc et al.* 175 USPQ 260, at 272 (S.D.FI. 1972).

Eliminate clearly irrelevant and marginally pertinent cumulative information. If a

long list is submitted, highlight those documents which have been specifically brought to applicant's attention and/or are known to be of most significance. See *Penn Yan Boats, Inc. v. Sea Lark Boats, Inc.*, 359 F. Supp. 948, 175 USPQ 260 (S.D. Fla. 1972), *aff'd*, 479 F.2d 1338, 178 USPQ 577 (5th Cir. 1973), *cert. denied*, 414 U.S. 874 (1974). But cf. *Molins PLC v. Textron Inc.*, 48 F.3d 1172, 33 USPQ2d 1823 (Fed. Cir. 1995).

Please note that it is the applicant's duty to particularly point out any highly relevance material amongst the references cited in the IDS filed on 9/8/2008.

The examiner under the condition noted above performed a cursory review of the submitted references

#### **REQUIREMENT FOR INFORMATION**

Applicant and the assignee of this application are required under 37 CFR 1.105 to provide the following information that the examiner has determined is reasonably necessary to the examination of this application.

The examiner requests, in response to this Office action, any documentation known to qualify as prior art under 35 U.S.C. sections 102 or 103 with respect to the invention as defined by the independent and dependent claims. That is, any prior art (including any documentation used to develop the disclosed/claimed subject matter, background art and any products for sale) similar to the claimed invention that could reasonably be used in a 102 or 103 rejection. This request does not require a search. Support for this request is derived from 37 C.F.R. 1.56 and 1.105, however, it is not intended to interfere with or go beyond that required under 37 C.F.R. 1.56 or 1.105.

In response to this Office action, the examiner requests a discussion of which, if any, independent claim features (claims 1,6,9,11) correspond to prior art elements from the Information disclosure statement list of prior art documentation. Since applicant is most knowledgeable of the present invention and the background art, a discussion of the background art with respect to the instant claims is essential. That is, for each **claim limitation** [total claims 1-56 pending in this application] **identify a corresponding prior art element by page, line, and/or fig.** The examiner is specifically looking for prior art elements corresponding to any of the following independent claim limitations. The following list claims 1-9 appears to represent the main invention(s)/embodiment(s):

For example: claims 1,6,9 and 11 is given below:

1. *(Currently amended) A method of diagnosing a patient through the reuse of medical script objects used in the automated diagnosis or management of a medical condition, the method comprising:*

*providing a plurality of disease objects, each disease object processing data indicative of an abnormal health state or disease and each disease object associated with a plurality of symptom objects, each symptom object processing data indicative of a patient sign, complaint, finding, or test result;*

*assigning a weight for each symptom, wherein a particular disease object includes a preferred weight for one or more preferred symptoms and an alternative weight for one or more related alternative symptoms, wherein the alternative symptoms for a particular preferred symptom are selected from a set of archived symptom objects that are available for reuse;*

in conjunction with a computing environment, selecting, from the disease objects,  
a disease object applicable to a patient; and

in conjunction with a computing environment, invoking a preferred symptom  
object or one of the related alternative symptom objects for the selected disease object  
so as to output a diagnosis of a patient based on the object invocation:

wherein each object comprises an encapsulated combination of data and  
processes that manipulate the data.

6. (Currently amended) An object based automated computer-implemented  
diagnostic system comprising:

a plurality of objects which interact to determine a diagnosis of a patient, an object being  
an encapsulated combination of data and processes that manipulate the data, wherein  
the objects includes at least two diagnostic objects comprising:

a disease object processing data indicative of an abnormal health state or  
disease, a symptom object processing data indicative of a patient sign, complaint,  
finding, or test result, a valuator object processing data indicative of a value of the  
symptom of the patient, a question object processing data indicative of questions to ask  
the patient specific to a specific symptom of the patient, a node object processing data  
indicative of a single well-defined question to the  
and a candidates object processing data indicative of candidate diseases for diagnosis  
of the patient, wherein the objects are arranged in a hierarchical relationship such that  
the result of one of the objects is input to another of the objects; and



*at least one of the diagnostic objects directly invokes another of the diagnostic objects in a computer-based medical diagnostic system so as to output a diagnosis of a patient based on the prior object invocation,*  
*wherein the system is operable on a computing environment.*

9. (Currently amended) An object based automated diagnostic system comprising: "  
a plurality of diagnostic objects which interact to determine a diagnosis of a patient, *an object being an encapsulated combination of data and processes that manipulate the data,* wherein the diagnostic objects include at least a plurality of disease objects, *each diagnostic object processing data indicative of an abnormal health state or disease,*  
a plurality of symptom objects, *each symptom object processing data indicative of a patient sign, complaint, finding, or test result,* and a plurality of valuator objects, *each valuator object processing data indicative of a value of the symptom of the patient,*  
and  
wherein at least some of the diagnostic objects perform their own tasks and directly call upon other diagnostic objects to perform their tasks at the appropriate time in a computer-based medical diagnostic system so as to output a diagnosis of a patient *wherein the system is operable on a computing environment.*

11. (Currently amended) A computer-implemented method of diagnosing a patient through the reuse of medical script objects used in the automated diagnosis or management of a medical condition, the method comprising:

providing a plurality of disease objects, each disease object processing data indicative of an abnormal health state or disease and each disease object associated with a plurality of symptom objects, each symptom object processing data indicative of a patient sign, complaint, finding, or test result;

assigning a weight for each symptom, wherein a particular disease object includes a preferred weight for one or more preferred symptoms and an alternative weight for one or more alternative symptoms, wherein the alternative symptoms for a particular preferred symptom are selected from a set of archived symptom objects that are available for reuse, and wherein the particular preferred symptom has one or more related alternative symptoms that represent different approaches for eliciting further diagnostic information related to a same patient health condition;

in conjunction with a computing environment, selecting from the disease object, a disease object applicable to a patient; and

in conjunction with a computing environment, invoking a preferred symptom object or one of the related alternative symptom objects for the selected disease object so as to output a diagnosis of a patient based on the object invocation~  
wherein the system is operable on a computing environment, and  
wherein each object comprises an encapsulated combination of data and processes that manipulate the data.

Additionally, the examiner requests a discussion of which, if any, presently claimed features (independent claims 1,6,9, and 11 only) correspond to prior art elements in the IDS documentation filed on dated 11/2/2010;6/21/2010;3/12/2010;11/19/2009;6/25/2009;6/15/2009;1/16/2009.

Here again, the examiner is specifically looking for limitations of claims 1-56 in the instant application. For each claim limitation identify a corresponding prior art element by page, line, and/or fig.

The request may be fulfilled by asking the attorney(s) of record handling prosecution and the inventor(s)/assignee for references qualifying as prior art. A simple statement that the query has been made and no prior art found is sufficient to fulfill the request. Any replies to the first communication responding to this request and any information disclosures beyond the scope of this request are subject to the fee and certification requirements of 37 CFR section 1.97.

In the event documentation (e.g. newly submitted/previously submitted on an IDS, incorporated by reference or "common knowledge" generally found in the background section but not a publication) is determined to qualify as prior art, a discussion of relevant passages, figs. etc. with respect to the claims must be provided. Since applicant is most knowledgeable of the present invention and submitted art, a discussion of the reference(s) with respect to the instant claims is essential.

The **examiner also requests**, in response to this Office action, a showing of support for the following: Claim language found in the present independent claims. That

is, indicate support for each claim element by specifically pointing to page(s) and line no(s), in the specification and/or drawing figure(s). Additionally, in the event documentation is incorporated by reference (i.e. prior commonly owned patents, publications or "common knowledge") and is relied upon for supporting claim limitations, such supporting documentation and limitations must be identified. This will assist in prosecuting the application. Here again, this request is derived from 37 C.F.R. 1.105.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-56 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1 and 11 [as amended] directed to a method of reuse of medical script objects. This claimed subject matter lacks a practical application of a judicial exception (law of nature, abstract idea, naturally occurring article/phenomenon) since it fails to produce a useful, concrete and tangible result. Specifically, the claimed subject matter does not produce a tangible result because the claimed subject matter fails to produce a result that is limited to having real world value rather than a result that may be interpreted to be abstract in nature as, for example, a thought, a computation, or manipulated data. More specifically, the claimed subject matter provides for a final result of the method of reuse of medical script objects. This produced result remains in

the abstract, and thus, fails to achieve the required status of having real world value. Claims 2-5, 12-19, 43-48, 52-53, and 56 are likewise rejected. It is further noted that claims 1,11 as amended merely adding language "computing environment" selecting disease objects.....wherein each object comprises an "encapsulated" combination of data .....manipulate the data" is considered to be mere software routines and/or software code in view of the specification [page 3, 4-7, line 12-16, page 10, 21-30, page 14,-20, page 31-34, page 85 line 12-26, page 87], also, **Encapsulation** is the process of combining data and functions into a single unit called class , and is only accessible through the functions present inside the class, data encapsulation is part of hiding data, and therefore, claims 1,11 as amended considered as software per sa.

The claims 6 and 9 [as amended] lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 U.S.C. 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. It is further noted that claims 6,9 as amended merely adding language "computing environment" selecting disease objects.....wherein each object comprises an "encapsulated" combination of data .....manipulate the data" is considered to be mere software routines and/or software code in view of the specification [page 3, 4-7, line 12-16, page 10, 21-30, page 14,-20, page 31-34, page 85 line 12-26, page 87], also, **Encapsulation** is the process of combining data and functions into a single unit called class , and is only accessible through the functions present inside the class, data encapsulation is part of hiding data, and therefore, claims

1,11 as amended considered as software per se. They are, at best, functional descriptive material per se. Claims 7-8, 10, 20- 42, 49-51 and 54-55 are likewise rejected.

A claimed process is eligible for patent protection under 35 U.S.C. § 101 if:

"(1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing. See Benson, 409 U.S. at 70 ('Transformation and reduction of an article 'to a different state or thing' is the clue to the patentability of a process claim that does not include particular machines.'). Diehr, 450 U.S. at 192 (holding that use of mathematical formula in process 'transforming or reducing an article to a different state or thing' constitutes patent-eligible subject matter); see also Flook, 437 U.S. at 589 n.9 ('An argument can be made [that the Supreme] Court has only recognized a process as within the statutory definition when it either was tied to a particular apparatus or operated to change materials to a 'different state or thing''); Cochrane v. Deener, 94 U.S. 780, 788 (1876) ('A process is...an act, or a series of acts, performed upon the subject-matter to be transformed and reduced to a different state or thing.').7 A claimed process involving a fundamental principle that uses a particular machine or apparatus would not pre-empt uses of the principle that do not also use the specified machine or apparatus in the manner claimed. And a claimed process that transforms a particular article to a specified different state or thing by applying a fundamental principle would not pre-empt the use of the principle to transform any other article, to transform the same article but in a manner not covered by the claim, or to do anything other than transform the specified article." (In re Bilski, 88 USPQ2d 1385, 1391 (Fed. Cir. 2008))

Also noted in Bilski is the statement, "Process claim that recites fundamental principle, and that otherwise fails 'machine-or-transformation' test for whether such claim is drawn to patentable subject matter under 35 U.S.C. §101, is not rendered patent eligible by mere field-of-use limitations; another corollary to machine-or-transformation test is that recitation of specific machine or particular transformation of specific article does not transform unpatentable principle into patentable process if recited machine or transformation constitutes mere 'insignificant post- solution activity.'" (In re Bilski, 88 USPQ2d 1385, 1385 (Fed. Cir. 2008)) Examples of insignificant post-solution activity include data gathering and outputting. Furthermore, the machine or transformation must impose meaningful limits on the scope of the method claims in order to pass the

machine-or-transformation test. Please refer to the USPTO's "Guidance for Examining Process Claims in view of In re Bilski memorandum dated January 7, 2009, <[http://www.uspto.gov/web/offices/pac/dapp/opla/documents/bilski\\_guidance\\_memo.pdf](http://www.uspto.gov/web/offices/pac/dapp/opla/documents/bilski_guidance_memo.pdf)>>

**NOTE:** Examiner also cites and incorporates "Board of Patent Appeals and Interferences" decision page 8-10 mailed on 3/23/2010.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. ***Claims 6-9, 20-27, 29-38, 40-42, and 49-51, and 54-55 are rejected under 35 U.S.C. 102(b) as being anticipated by Iliff (U.S. Patent No. 5,868,669).***

With respect to claim 6, Iliff teaches an object based automated computer-implemented diagnostic system comprising a plurality of objects which interact to determine a diagnosis of a patient, an object being an encapsulated combination of data and processes that manipulate the data (MDATA system supports object oriented language such as C++ related to patient's medical records and/objects, further Encapsulation is the process of combining data and functions into a single unit called

class is integral part of C++ programming because Iliff specifically teaches MDATA system including defining various software modules as detailed in col 8, line 49-67) wherein the objects include at least two diagnostic objects comprising:

a disease object processing data indicative of an abnormal health state or disease (col 20, line 1-5, col 36, line 50-63), abnormal health state or disease corresponds to Iliff's disease object[s];

a symptom object, processing data indicative of a patient sign, complaint, finding, or test results (col 39, line 35-60), Iliff specifically teaches MDATA system processing information related to patient's diagnostic or symptom screening for example as detailed in col 39, line 35-60;

a valuator object, processing data indicative of a value of the symptom of the patient, a question object, processing data indicative of questions to ask the patient specific to a specific symptom of the patient (col 30, line 35-60, col 40, line 7-12), Iliff specifically teaches MDATA system specifically processing specific questions related to specific headaches for example "migraine screening",

a node object, processing data indicative of a single well-defined question to the patient and a candidate object processing data indicative of candidate disease for diagnosis of the patient (i.e., diagnoses and symptoms, each diagnosis associated with symptoms in MDATA system, lines 24-35 in col. 12, lines 38- 45 in col. 21, and line 24 in col. 35 thru line 49 in col. 42, the MDATA system is written in object-oriented program language, such as C++, lines 7-16 in col. 14, therefore teaching object),



wherein the objects are arranged in a hierarchical relationship such that the result of one of the objects is input to another of the objects (i.e., a directed graph of a node map, line 64 in col. 14 thru line 24 in col. 15, and process of initial screening questions to migraine screening questions and to migraine confirmation questions, lines 25-44 in col. 35, lines 61-67 in col. 39, and lines 18-25 in col. 40), Iliff teaches at least one of the diagnostic objects directly invokes another of the diagnostic objects in a computer-based medical diagnostic system so as to output a diagnosis of a patient based on the prior object invocation (i.e., a directed graph of a node map in which a node directly invokes another node, line 64 in col. 14 thru line 24 in col. 15; migraine object directly invokes migraine symptom/questions objects, lines 61-67 in col. 39).

'wherein the system is operable on a computing environment (fig 1, fig 3-4, col 7, line 43-49)

11. With respect to claim 7, Iliff teaches the objects include a plurality of disease objects and a plurality of symptom objects (i.e., diagnoses and symptoms, each diagnosis associated with symptoms in MDATA system, lines 24-35 in col. 12, lines 38-45 in col. 21, and line 24 in col. 35 thru line 49 in col. 42, the MDATA system is written in object-oriented program language, such as C++, lines 7-16 in col. 14, therefore teaching object).

12. With respect to claim 8, Iliff teaches an engine object to coordinate the other objects (i.e., a node map, lines 1-7 in col. 15 and evaluation process 254 in fig. 6).

13. With respect to claim 9, Iliff teaches an object based automated diagnostic system comprising: a plurality of diagnostic objects which interact to determine a diagnosis of a patient, an object being an encapsulated combination of data and processes that manipulate the data (MDATA system supports object oriented language such as C++ related to patient's medical records and/objects, further Encapsulation is the process of combining data and functions into a single unit called class is integral part of C++ programming because Iliff specifically teaches MDATA system including defining various software modules as detailed in col 8, line 49-67) wherein the diagnostic objects include at least a plurality of disease objects, each diagnostic object processing data indicative of an abnormal health state or disease" (col 20, line 1-5, col 36, line 50-63 ), abnormal health state or disease corresponds to Iliff's disease object[s];

a plurality of symptom objects, each symptom object processing data indicative of a patient sign, complaint, finding, or test result" (col 39, line 35-60), Iliff specifically teaches MDATA system processing information related to patient's diagnostic or symptom screening for example as detailed in col 39, line 35-60; and

a plurality of valuator objects, each valuator object processing data indicative of a value of the symptom of the patient" (col 30, line 35-60, col 40, line 7-12), Iliff specifically teaches MDATA system specifically processing specific questions related to specific headaches for example "migraine screening"; and

wherein at least some of the diagnostic objects perform their own tasks and directly call upon other diagnostic objects to perform their tasks at the appropriate time in a computer-based medical diagnostic system so as to output a diagnosis of a patient (i.e., diagnosis, symptoms, and evaluation processes, each diagnosis associated with symptoms in MDATA system, lines 24-35 in col. 12, lines 38-45 in col. 21, lines 36-41 in col. 39, line 24 in col. 35 thru line 49 in col. 42, and lines 24-37 in col. 18; the MDATA system is written in object-oriented program language, such as C++, lines 7-16 in col. 14, therefore teaching object; a directed graph of a node map in which a node directly invokes another node, line 64 in col. 14 thru line 24 in col. 15).

'wherein the system is operable on a computing environment (fig 1, fig 3-4, col 7, line 43-49).

14. With respect to claim 20, Iliff teaches the objects include a disease object (i.e., migraine object, lines 53-60 in col. 39), a symptom object (i.e., headache, lines 53-60 in col. 39), a valuator object (i.e., evaluation process 254, lines 36-41 in col. 39), a question object (i.e., questions, lines 41-52 in col. 39), a node object (i.e., interface to a client 124 in fig. 4), and a candidate object (i.e., ranked lists, lines 12-35 in col. 39).

15. With respect to claim 21, Iliff teaches. the symptom object invokes the valuator object (i.e., the results of symptoms are evaluated, lines 53-60 in col. 39).

16. With respect to claim 22, Iliff teaches the valuator object invokes the question object (i.e., another screen .questions are invoked after the evaluation, line 53 in col. 39 thru line 12 in col. 40).

17. With respect to claim 23, Iliff teaches the question object invokes the node object (i.e., another screen questions are asked to the user, line 53 in col. 39 thru line 12 in col. 40).

18. With respect to claim 24, Iliff teaches a particular disease is associated with a plurality of disease objects corresponding to different phases of the particular disease (i.e., stages of illness, lines 31-42 in col. 1).

19. With respect to claim 25, Iliff teaches a particular disease is associated with a plurality of disease objects corresponding to different populations for the particular disease (lines 22-28 in col. 47).

20. With respect to claim 26, Iliff teaches a particular disease object is representative of a plurality of related diseases that share common symptoms (i.e., meningitis and brain tumor shares headache, lines 11-26 in col. 41).

21. With respect to claim 27, Iliff teaches the objects act independently of other objects and a particular object retains a record of its actions for future reference (lines 37-47 in col. 13 and lines 24-44 in col. 18).

22. With respect to claim 29, Iliff teaches a particular disease object monitors the questions and answers of other disease objects (lines 11-26 in col. 41 and lines 43-46 in col. 40).

23. With respect to claim 30, Iliff teaches the engine object coordinates a plurality of concurrently operating disease objects by switching execution among the disease objects (i.e., excluding diseases from diagnostic consideration, lines 11-26 in col. 41 and lines 43-46 in col. 40).

24. The limitations of claim 31 are rejected in the analysis of claim 21 above, and the claim is rejected on that basis.

25. The limitations of claim 32 are rejected in the analysis of claim 20 above, and the claim is rejected on that basis.

26. The limitations of claim 33 are rejected in the analysis of claim 22 above, and the claim is rejected on that basis.

27. The limitations of claim 34 are rejected in the analysis of claim 23 above and the claim is rejected on that basis.

28. The limitations of Claim 35 are rejected in the analysis of claim 24 above and the claim is rejected on that basis.

29. The limitations of claim 36 are rejected in the analysis of claim 25 above and the claim is rejected on that basis.

30. The limitations of claim 37 are rejected in the analysis of claim 26 above and the claim is rejected on that basis.

31. The limitations of claim 38 are rejected in the analysis of claim 27 above and the claim is rejected on that basis.

32. The limitations of claim 40 are rejected in the analysis of claim 29 above and the claim is rejected on that basis.

33. The limitations of claim 41 are rejected in the analysis of claim 8 above, and the claim is rejected on that basis.

34. The limitations Of claim 42 are rejected in the analysis of claim 30 above, and the claim is rejected on that basis.

35. With respect to claim 49, Iliff teaches the disease object directly invokes another disease object (i.e., migraine disease object directly invokes a next disease object in a ranked list, lines 38-42 in col. 40 and lines 17-35 in col. 39).

36. With respect to claim 50, Iliff teaches the disease object directly invokes the symptom object (i.e., migraine object directly invokes ,migraine symptom/questions objects, lines 61-67 in col. 39).

37. With respect to claim 51, Iliff teaches one of the plurality of disease objects directly calls another of the plurality of disease object (i.e., .migraine disease object directly invokes a next disease object in a ranked list, lines 38-42 in col. 40 and lines 17-35 in col. 39).

38. As to Claim 54-55, Iliff teaches "wherein the diagnosis identifies at least one abnormal health state" (col 20, line 1-5, col 36, line 50-63)

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. ***Claims 1, 3-5, 10-13, 15-19, 43-48, 52-53 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iliff (U.S. Patent No. 5,868,669) in view of Gray (U.S. Patent No. 6,149,585).***

39. With respect to claim 1, Iliff teaches providing a plurality of disease objects, processing data indicative of an abnormal health state or disease and each disease object (col 20, line 1-5, col 36, line 50-63), abnormal health state or disease corresponds to Iliff's disease object[s]; associated with a plurality of symptom objects, each symptom object processing data indicative of a patient sign, complaint, finding, or test result (col 39, line 35-60, i.e., diagnoses and symptoms, each diagnosis associated with symptoms in MDATA system, lines 24-35 in col. 12, lines 38-45 in col. 21, and line 24 in Col. 35 thru line 49 in col. 42, the MDATA system is written in object-oriented program language, such as C++, lines 7-16 in col. 14, therefore teaching object);

Iliff teaches assigning a weight for each symptom (i.e., weighted symptom questions, lines 24-34 in col. 60, lines 45-48 in col. 61, and lines. 28- 39 in col. 62).'



Iliff teaches alternative symptoms for a particular preferred symptom are selected from a set of archived symptoms objects that are available for reuse (i.e., symptoms of headache, lines 6-29 in col. 13, fig. 6, lines 36-57 in col. 39, and lines 7-32 in col. 40).

Iliff teaches in conjunction with a computer environment ( fig 1, fig 3-4), selecting from the disease objects, a disease object applicable to a patient (i.e., the MDATA system concludes that migraine is the most likely cause of the patient's headache, lines 53-60 in col. 39);

Iliff teaches in conjunction with a computing environment (fig 1, fig 3-4), invoking a preferred symptom object or one of the related alternative symptom objects for the selected disease object so as to output a diagnosis of a patient based on the object invocation (i.e., migraine object directly invokes migraine symptom/questions objects, lines 61-67 in col. 39);

"wherein each object comprises an encapsulated combination of data and processes that manipulate the data" (MDATA system supports object oriented language such as C++ related to patient's medical records and/objects, further Encapsulation is the process of combining data and functions into a single unit called class is integral part of C++ programming because Iliff specifically teaches MDATA system including defining various software modules as detailed in col 8, line 49-67) .

It is however, noted that Iliff does not explicitly disclose a preferred weight and an alternative weight. However, Gray discloses a plurality of disease associated with a plurality of symptoms in a medical diagnostic enhancement system (lines 7-24 in col. 6 and line 23 in col. 2 thru line 41 in col. 3). Gray also discloses assigning a weight for

each symptom, wherein a particular disease includes a preferred weight for one or more preferred symptoms and an alternative weight for one or more related alternative symptoms, wherein the alternative symptoms are selected from a set of symptoms (lines 25-48 in col. 6).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to incorporate diagnostic enhancement tasks particularly patient data for possible diagnoses of Gray into computerized medical diagnostic particularly user's changing condition over time of Iliff because both Iliff, Gray specifically directed to medical diagnostic system [Iliff: Abstract; Gray: Abstract], particularly in a object oriented environment [Iliff: col 8, line 46-55; Gray: col 3, line 10-16] and they both are from same field of endeavor; Because both Iliff and Gray teach medical diagnostic and treatment advice, it would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to substitute and/or modify one method for the other to achieve the predictable result of extracting specific diagnoses and symptom conditions, further able to present an accurate diagnosis to the patient to treat condition[s] [Gray: Abstract, col 4, line 31-39]

40. With respect to claim 3, Iliff teaches the set of archived symptom objects is stored in a database (fig. 1, fig. 3, and fig. 6).

41. With respect to claim 4, Iliff teaches accessing the set of archived symptom objects stored in the database via a global computer network (fig. 1).

42. With respect to claim 5, Iliff teaches each symptom object has underlying objects used to establish a symptom (i.e., a node map, lines 1-7 in col. 15), wherein the objects are arranged in a hierarchical relationship (i.e., a directed graph of a node map, line 64 in col. 14 thru line 24 in col. 15).

43. With respect to claim 10, Iliff discloses the claimed subject matter as discussed above. Iliff further teaches one or more alternative symptoms of a preferred symptom (i.e., symptoms of headache, lines 36-57 in col. 39). Iliff does not explicitly disclose a preferred weight and an alternative weight. However, Gray discloses a plurality of disease associated with a plurality of symptoms in a medical diagnostic enhancement system (lines 7-24 in col. 6 and line 23 in col. 2 thru line 41 in col. 3). Gray also discloses assigning a weight for each symptom, wherein a particular disease includes a preferred weight for one or more preferred symptoms and an alternative weight for one or more alternative symptoms (lines 25-48 in col. 6). Therefore, based on Iliff in view of Gray, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Gray to the system of Iliff in order to present an accurate diagnosis.

44. With respect to claim 11, Iliff teaches providing a plurality of disease objects, processing data indicative of an abnormal health state or disease and each disease object (col 20, line 1-5, col 36, line 50-63), abnormal health state or disease corresponds to Iliff's disease object[s]; associated with a plurality of symptom objects ,

each symptom object processing data indicative of a patient sign, complaint, finding, or test result ( col 39, line 35-60, i.e., diagnoses and symptoms, each diagnosis associated with symptoms in MDATA system, lines 24-35 in col. 12, lines 38-45 in col. 21, and line 24 in Col. 35 thru line 49 in col. 42, the MDATA system is written in object-oriented program language, such as C++, lines 7-16 in col. 14, therefore teaching object);

Iliff teaches assigning a weight for each symptom (i.e., weighted symptom questions, lines 24-34 in col. 60, lines 45-48 in col. 61, and lines 28-39 in col. 62). Iliff teaches alternative symptoms for a particular preferred symptom are selected from a set of archived symptoms objects that are available for reuse (lines 6-29 in col. 13, fig. 6, lines 36-57 in col. 39, and lines 7-32 in col. 40). Iliff teaches a particular preferred symptom has one or more related alternative symptoms that represent different approaches for eliciting further diagnostic information related to a same patient health condition (i.e., symptoms of headache, lines 36-57 in col. 39, lines 36-57 in col. 39, and lines 7-32 in col. 40).

Iliff teaches in conjunction with a computer environment ( fig 1, fig 3-4), selecting from the disease objects, a disease object applicable to a patient (i.e., the MDATA system concludes that migraine is the most likely cause of the patient's headache, lines 53-60 in col. 39);

Iliff teaches in conjunction with a computing environment (fig 1, fig 3-4), invoking a preferred symptom object or one of the related alternative symptom objects for the selected disease object so as to output a diagnosis of a patient based on the object

invocation (i.e., migraine object directly invokes migraine symptom/questions objects, lines 61-67 in col. 39).

Iliff teaches "wherein the system is operable on a computing environment" (fig 1, fig 3-4);

Iliff teaches "wherein each object comprises an encapsulated combination of data and processes that manipulate the data" (MDATA system supports object oriented language such as C++ related to patient's medical records and/objects, further Encapsulation is the process of combining data and functions into a single unit called class is integral part of C++ programming because Iliff specifically teaches MDATA system including defining various software modules as detailed in col 8, line 49-67) .

It is however, noted that Iliff does not explicitly disclose a preferred weight and an alternative weight. On the other hand, Gray discloses a plurality of disease associated with a plurality of symptoms in a medical diagnostic enhancement system (lines 7-24 in col. 6 and line 23 in col. 2 thru line 41 in col. 3). Gray also discloses assigning a weight for each symptom, wherein a particular disease includes a preferred weight for one or more preferred symptoms and an alternative weight for one or more alternative symptoms, wherein the alternative symptoms for a particular preferred symptom are selected from a set of symptoms (lines 25-48 in col. 6).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to incorporate diagnostic enhancement tasks particularly patient data for possible diagnoses of Gray into computerized medical diagnostic particularly user's changing condition over time of Iliff because both Iliff, Gray

specifically directed to medical diagnostic system [Iliff: Abstract; Gray: Abstract], particularly in a object oriented environment [Iliff: col 8, line 46-55; Gray: col 3, line 10-16] and they both are from same field of endeavor; Because both Iliff and Gray teach medical diagnostic and treatment advice, it would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to substitute and/or modify one method for the other to achieve the predictable result of extracting specific diagnosis's and symptom conditions, further able to present an accurate diagnosis to the patient to treat condition[s] [Gray: Abstract, col 4, line 31-39]

45. With respect to claim 12, Gray further teaches weights can be different (lines 25-48 in col. 6). Therefore, the limitations of claim 12 are rejected in the analysis of claim 11 above, and the claim is rejected on that basis.

46. With respect to claim 13, Gray further teaches weights can be different (lines 25-48 in col. 6). Therefore, the limitations of claim 13 are rejected in the analysis of claim 12 above, and the claim is rejected on that basis.

47. With respect to claim 15, Iliff teaches the set of archived symptom objects is stored in a database (fig. 1, fig. 3, and fig. 6).

48. With respect to claim 16, Iliff teaches accessing the set of archived symptom objects stored in the database via a global computer network (fig. 1).

49. With respect to claim 17, Iliff teaches each symptom object has underlying objects used to establish a symptom (i.e., a node map, lines 1-7 in col. 15).

50. With respect to claim 18, Iliff teaches the reuse includes using one of the archived symptom objects in conjunction with a plurality of disease objects (lines 36-52 in col. 39).

51. With respect to claim 19, Iliff teaches a particular preferred symptom is selected when a particular diagnosis is likely (lines 36-52 in col. 39).

The limitations of claim 43 are rejected in the analysis of claim 18 above, and the claim is rejected on that basis.

52. The limitations of claim 44 are rejected in the analysis of claim 19 above, and the claim is rejected on that basis.

53. With respect to claim 45, Iliff teaches a particular disease is associated with a plurality of disease objects corresponding to different phases of the particular disease (i.e., stages of illness, lines 31-42 in col. 1).

54. With respect to claim 46, Iliff teaches a particular disease is associated with a plurality of disease objects corresponding to different populations for the particular disease (lines 22-28 in col. 47).

55. With respect to claim 47, Iliff teaches a particular disease object is representative of a plurality of related diseases that share common symptoms (i.e., meningitis and brain tumor shares headache, lines 11-26 in col. 41).

56. With respect to claim 48, Iliff teaches the selected disease object directly invokes another of the plurality of disease objects (i.e., migraine disease object directly invokes a next disease object in a ranked list, lines 38-42 in col. 40 and lines 17-35 in col. 39).

57. With respect to claim 52, Iliff teaches the selected disease object directly invokes another of the plurality of disease objects (i.e., migraine disease object directly invokes a next disease object in a ranked list, lines 38-42 in col. 40 and lines 17-35 in col. 39).

58. As to Claim 53,56, Iliff teaches "wherein the diagnosis identifies at least one abnormal health state" (col 20, line 1-5, col 36, line 50-63)



**59. Claims 2 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iliff (U.S. Patent No. 5,868,669) in view of Gray (U.S. Patent No. 6,149,585), and further in view of Branson et al. (U.S. Patent No. 6,598,035).**

60. With respect to claim 2, Iliff and Gray disclose the claimed subject matter as discussed above except assigning a new name for a symptom object that is reused. However, Branson teaches assigning a new name for a symptom object that is reused (fig. 16 and lines 17-39 in col. 20) in order to provide customization and extension of an object (lines 21-57 in col. 4). Therefore, based on Iliff in view of Gray, and further in view of Branson, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Branson to the system of Iliff in order to provide customization and extension of an object.

61. The limitations of claim 14 are rejected in the analysis of claim 2 above, and the claim is rejected on that basis.

**12. Claims 28 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iliff (U.S. Patent No. 5,868,669) in view of Branson et al. (U.S. Patent No. 6,598,035)**

62. With respect to claim 28, Iliff discloses the claimed subject matter as discussed above except encapsulation of data. However, Branson teaches each object has

corresponding data and processes, and wherein the data is encapsulated so that other objects only see the processes of a particular object that can be invoked to access the data (lines 39-50 in col. 6, lines 26-34 in col. 12, and lines 23-31 in col. 15) in order to maintain the integrity of the data. Therefore, based on Iliff in view of Branson, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Branson to the system of Iliff in order to maintain ,the integrity of data .

Therefore, based on Iliff in view of Branson, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Branson to the system of Iliff in order to maintain the integrity of data of an object. The limitations of claim 39 are rejected in the analysis of claim 28 above, and the claim is rejected on that basis.

### **Response to Argument**

#### ***Claim Rejections - 35 USC § 101***

a) At page 10, claims 6,9, applicant argues that "Applicant has amended claim 6 and similarly claim 9 to recite "...an object being an encapsulated combination of data and processes that manipulate the data....wherein the system is operable on a computing environment". Applicant respectfully submits that Claims 6 and 9 encompass a "computer-based medical diagnostic system" that

As to the above argument [a], the examiner respectfully disagrees with the Appellant in finding that all of the claims in the application are invalid under 35 USC 101.

As stated in the Final Rejection dated 8/13/2007, and Board decision mailed on 3/23/2010 [page 8-10 ] The examiner finds that the claims 6, 9 in the instant application [software routines or merely algorithms] share the same characteristics as the claims in Gottshcalk. The claims 6, 9 in the instant application are directed to a "an object based automated computer-implemented diagnostic system"[ claim 6]; "an object based automated diagnostic system" [claim 9] is equivalent to machine-implemented abstract idea. These claims 6,9 are (i) so abstract and sweeping as to cover both known and unknown uses of the underlying "software algorithm" (ii) so abstract and sweeping as to be applicable to a wide variety of unrelated applications.

It is noted that claims 6,9 as amended merely adding language "computing environment" selecting disease objects.....wherein each object comprises an "encapsulated" combination of data .....manipulate the data" is considered to be mere software routines and/or software code in view of the specification [page 3, 4-7, line 12-16, page 10, 21-30, page 14,-20, page 31-34, page 85 line 12-26, page 87], also, Encapsulation is the process of combining data and functions into a single unit called class , and is only accessible through the functions present inside the class, data encapsulation is part of hiding data, and therefore, claims 1,6,9,11 as amended considered as software per se. They are, at best, functional descriptive material per se. Claims 7-8, 10, 20- 42, 49-51 and 54-56 are likewise rejected.

b) At page 11-12, claim 6, applicant argues "The examiner states that Illiff '669 teaches an object-based automated computer implemented diagnostic symptom that discloses the features of claim 6, rejected above. Claim 6 has been amended to specifically recite clarification as to the meaning of the term "object" and recite language from the specification which describes the functionality for each of the specific objects, " a disease object processing data indicative of an abnormal health state or disease, a symptom object processing data indicative of a patient sign, complaint, finding, or test result, a valuator object processing data indicative of a value of the symptom of the patient.....

There is no teaching or suggestion of these types of objects in Illiff '669. The examiner states at page 5, of the office action, that "the MDATA system is written in

object-oriented program language.....therefore teaching object". Applicant respectfully disagrees. Programming in C++ is not the same thing as specifying the diagnostic objects. Claim 6 now recites clarification for the term "object". Further, as set forth above, Claim 6, for each of the diagnostic objects, recites language which describes the functionality for each of the specific objects.....Therefore, Illiff cannot anticipate independent claims 6 and 9.....

As shown in the cited portion of the reference, there are no symptom objects or question objects.....Thus, the cited passage does not support the rejection.

As to the argument [b], examiner hereby refer to examiner answer arguments mailed date 8/28/2008 and Board decision page 11-17 mailed on 3/23/2010, also follow the discussion:

Illiff specifically teaches MDATA system supports object oriented language such as C++ related to patient's medical records and/objects, further Encapsulation is the process of combining data and functions into a single unit called class is integral part of C++ programming because Illiff specifically teaches MDATA system including defining various software modules as detailed in col 8, line 49-67 reads on the claim 6 [as amended] limitation" an object based automated computer- implemented diagnostic system comprising a plurality of objects which interact to determine a diagnosis of a patient, an object being an encapsulated combination of data and processes that manipulate the data"

Iliff also strongly teaches creating various catalog objects related to medical algorithm in the patient list for all patients particularly identifying different set of "problems" or "complaint" for example "headache" that requires immediate attention, including "very serious" that requires medical attention reads on "a disease object processing data indicative of an abnormal health state or disease". It is further noted that Iliff specifically teaches (MDATA system processing information related to patient's diagnostic or symptom screening for example as detailed in col 39, line 35-60 reads on "a symptom object, processing data indicative of a patient sign, complaint, finding or test results; further, Iliff specifically teaches MDATA system specifically processing specific questions related to specific headaches for example "migraine screening" (col 30, line 35-60, col 40, line 7-12) reads on "processing data indicative of questions to ask the patient specific to a specific symptom of the patient". Examiner also notes that Iliff specifically teaches and supports Iliff's system operable on computing environment for example as detailed fig 1, fig 3-4, col 7, line 43-49.

Examiner applies above arguments to claim 9 and their depend claims.

Therefore, Applicant's remarks are deemed not to be persuasive, and claims 6-9, 20-27, 29-38, 40-42, and 49-51, and 54-55 stand rejected under 35 USC 102(b) as being clearly anticipated by Iliff.

c) At page 13, claims 1, and 11, applicant argues "office action at 10, as set forth above Iliff does not teach "disease objects , each disease object processing data indicative of an abnormal health state or disease and each disease object associated

with a plurality of symptom.....test result"...Also set forth above, Iliff '669 fails to disclose an object, such that "each object comprises an encapsulated combination of data and processes that manipulate the data". Gray does not teach or suggest these features of claims 1 and 11 and therefore, does not cure the deficiencies of Iliff. Therefore, Iliff and Gray, alone or in combination, do not disclose all of the features of claims 1 and 11

As to the above argument [c], as stated above, Iliff specifically directed to diagnoses and symptoms, each diagnosis associated with symptoms in MDATA system, lines 24-35 in col. 12, lines 38-45 in col. 21, and line 24 in Col. 35 thru line 49 in col. 42, the MDATA system is written in object-oriented program language, such as C++, lines 7-16 in col. 14, therefore teaching object. Iliff also teaches MDATA system supports object oriented language such as C++ related to patient's medical records and/objects, further Encapsulation is the process of combining data and functions into a single unit called class is integral part of C++ programming because Iliff specifically teaches MDATA system including defining various software modules as detailed in col 8, line 49-67) .

It is however, noted that Iliff does not explicitly disclose a preferred weight and an alternative weight. On the other hand, Gray discloses a plurality of disease associated with a plurality of symptoms in a medical diagnostic enhancement system (lines 7-24 in col. 6 and line 23 in col. 2 thru line 41 in col. 3). Gray also discloses assigning a weight for each symptom, wherein a particular disease includes a preferred weight for one or more preferred symptoms and an alternative weight for one or more alternative

symptoms, wherein the alternative symptoms for a particular preferred symptom are selected from a set of symptoms (lines 25-48 in col. 6).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to incorporate diagnostic enhancement tasks particularly patient data for possible diagnoses of Gray into computerized medical diagnostic particularly user's changing condition over time of Iliff because both Iliff, Gray specifically directed to medical diagnostic system [Iliff: Abstract; Gray: Abstract], particularly in a object oriented environment [Iliff: col 8, line 46-55; Gray: col 3, line 10-16] and they both are from same field of endeavor; Because both Iliff and Gray teach medical diagnostic and treatment advice, it would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to substitute and/or modify one method for the other to achieve the predictable result of extracting specific diagnosis's and symptom conditions, further able to present an accurate diagnosis to the patient to treat condition[s] [Gray: Abstract, col 4, line 31-39]

Therefore, Applicant's remarks are deemed not to be persuasive, and claims 1, 3-5, 10-13, 15-19, 43-48, 52-53 and 56 stand rejected under 35 USC 103(a) as being unpatentable over Iliff in view of Gray

### ***Conclusion***

#### **The prior art made of record**

- |    |                |          |
|----|----------------|----------|
| a. | US Patent. No. | 5868669  |
| b. | US Patent.No.  | 26149585 |



Any inquiry concerning this communication or earlier communications from the examiner should be directed to Srirama Channavajjala whose telephone number is 571-272-4108. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:30 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim, Charles, can be reached on (571) 272-7421. The fax phone numbers for the organization where the application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Srirama Channavajjala/  
Primary Examiner, Art Unit 2157.